



$$\textcircled{1} \quad \frac{-1}{ka-1} = 1 \Rightarrow -1 = ka - 1 \Rightarrow 1 = ka$$

$$a = \frac{k}{1}$$

$$\frac{-1}{k} n^2 + n + 1 = 0$$

$$-n^2 + km + 1 = 0 \Rightarrow n = -7, \textcircled{2} \rightarrow \text{جواب}$$

$$\textcircled{3} \quad m < 0, \Delta > 0 \Rightarrow \begin{cases} 2a - km^2 > 0 \\ \Rightarrow 2a > km^2 \\ \frac{2a}{k} > m^2 \end{cases}$$

$$\Rightarrow \frac{-a}{k} m < \frac{0}{k} \Rightarrow \left(\frac{-a}{k}, 0 \right)$$

$$\textcircled{4} \quad x = \frac{m + \sqrt{a}}{1} \Rightarrow (km = m + \sqrt{a})$$

$$\Rightarrow (km - m = \sqrt{a})^2 \Rightarrow km^2 - 12m + 9 = 0$$

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$$\textcircled{5} \quad 2(\alpha^2 + \beta^2) + (\alpha^2 - \beta^2) \Rightarrow 2(s^2 - 2p) + (s)(\sqrt{s^2 - 4p})$$

$$\Rightarrow 2(17 - 2p) + 2(\sqrt{17 - 4p}) = 12$$

$$\Rightarrow 2(17 - 2p) + 2\sqrt{17 - 4p} = 12$$

$$17 - 2p + \sqrt{17 - 4p} = 6 \Rightarrow -2p + \sqrt{17 - 4p} = -11$$

$$\Rightarrow (\sqrt{17 - 4p} = 2p - 11)^2$$

$$\Rightarrow 17 - 4p = 4p^2 - 44p + 121 \Rightarrow 4p^2 - 40p + 104 = 0$$

$$(p - 13)^2 = 0 \Rightarrow \boxed{p = 13} \Rightarrow \frac{m+1}{1} = 13$$

$$\boxed{m = 12}$$

$$\textcircled{6} \quad a(n-1)^2 + 9 = an^2 - kan + ka + 9$$

$$ka + 9 = 9 \Rightarrow ka = 0 \Rightarrow \boxed{a = -1}$$

$$\Rightarrow n^2 + kn + 4$$

$$\begin{array}{c|c|c} 1 & 0 & \\ \hline -1 & + & 1 \end{array} \Rightarrow (-1, 0)$$

4) $P = \frac{qB}{\alpha} = \alpha B \xrightarrow{B \neq 0} \frac{q}{\alpha} = \alpha \Rightarrow \alpha = \pm 1$

$\alpha B^2 - vB + qB = 0 \Rightarrow \alpha B^2 + 2B = 0$
 $\Rightarrow B(\alpha B + 2) = 0 \Rightarrow \alpha B + 2 = 0 \Rightarrow \alpha B = -2$

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$\Rightarrow \alpha B + 2 = 0 \Rightarrow \alpha B = -2 \Rightarrow \alpha = -\frac{2}{B}$

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$\frac{-1}{\frac{2}{B}} + \frac{2}{B} = \frac{-1 + 2}{2} = \frac{1}{2}$

5) $B^2 + mB - 2m = 0 \Rightarrow B^2 - 2m = -mB \Rightarrow P = \frac{-2m}{1} = -2m$

~~$\alpha^2 + B^2 - 2m = 0$~~ $\alpha^2 + B^2 - 2m = 0 \Rightarrow \alpha^2 - 2m = -B^2 \Rightarrow \alpha^2 = 2m - B^2$

$\Rightarrow m^2 + 2m = 1 \Rightarrow m^2 + 2m - 1 = 0 \Rightarrow m = -1, 2$

$-1 \rightarrow \Delta < 0 \Rightarrow \text{ممنوع} \Rightarrow m = 2$

6) $\frac{-1}{2m} = \frac{-1}{m} \Rightarrow m \times \frac{1}{m^2} + 1 \times \frac{-1}{m} + \frac{m}{1} + 1$

$= \frac{1}{m} + \frac{-1}{m} + \frac{m}{1} + 1 = 1 \Rightarrow \frac{-1}{m} + \frac{m}{1} = 1$

$\frac{-1 + m^2}{m} = 1 \Rightarrow -1 + m^2 = m \Rightarrow m^2 - m - 1 = 0$

$m \neq 0 \Rightarrow m = 1 \Rightarrow -1m^2 + 1m + 1 = 0 \Rightarrow m = -1, 2 \Rightarrow m = 2$

7) $a(n-1)^2 + 1 = an^2 - 2an + a + 1 = 0$

$an^2 - 2an + a + 1 = 0 \Rightarrow a = -\frac{1}{n} \Rightarrow \frac{-1}{n}n^2 + 2n + 1 = 0$

$\frac{1}{a} + \frac{1}{n} = \frac{n + a}{an} = \frac{1}{n} = -\frac{1}{n}$

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10) $x^2 - 11x - 1 + 3x^2 + 4x + 3 = 0$
 $\Rightarrow 4x^2 - 7x + 2 = 0 \Rightarrow x = 1, -\frac{1}{4}$

$\boxed{x=1}$ $\Rightarrow x^2 - 11x + 12 = 0 \Rightarrow x = 1, 12$

سنبه

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